WHAT IS CLAIMED IS:

1. A method of interacting by a processor of at least one subroutine program with a main operating program upon a respective subroutine program call request by the main operating program, comprising the steps of:

5   a. accessing data regarding the processor, the respective call request, each requested subroutine program of the respective call request, and processor user requirements, said data being stored in a memory associated with the processor and arranged in an administrable format therein;

10   b. arbitrating, among the requested and unrequested subroutine programs of the processor, the activation of a respective requested subroutine program by the main operating program; and

        c. performing a task by the main operating program that is 15 indicated by the stored data pertaining to the respective call request and to the respective requested subroutine program that is activated as a result of the arbitrating step.

2. The method of claim 1, wherein the performing step comprises executing by the main operating program each respective requested 20 subroutine program that is activated, in a priority order resulting from the arbitrating step.

3. The method of claim 1, wherein the accessing and the arbitrating steps are performed independently of the type of requested subroutine program.

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4. The method of claim 1, wherein the data stored in the memory and arranged in an administrable format therein is capable of being customized so as to enable the performing step to be customized.

5. The method of claim 1, wherein at least one requested subroutine program comprises a plurality of additional subroutine programs that are arranged in a predetermined order of activation.

6. The method of claim 1, wherein at least one requested subroutine program comprises a plurality of additional subroutine programs that undergo an arbitration for the activation of a respective additional subroutine program prior to the arbitrating step of the method.

7. A method of resolving by a call processing system the interaction of at least one subroutine program with an operating program at a predefined time during the execution of the operating program, both programs and data pertaining to the programs and the predefined time being stored in a memory of the system, comprising the steps of:

    a. executing, at the predefined time, an operation using the data stored in the memory to activate a respective subroutine program, said activation operation being independent of the type of subroutine program to be activated;

b. accessing the data stored in the memory for the activation operation of the executing step, said data being arranged in the memory in logical table and bit map format so as to enable the interaction of the respective subroutine program to be customized; and

c. executing the respective subroutine program upon the activation of said program.

8. The method of claim 7, wherein the step of executing the activation operation comprises performing data operations with the entries of the data tables and data bit maps.

9. The method of claim 7, wherein the step of executing the activation operation comprises performing bit map logical operations and bit map searching operations with the entries of the data tables and data bit maps.

10. The method of claim 7, wherein the step of executing the respective subroutine program comprises executing a task by the operating program other than executing the respective subroutine program.

11. The method of claim 7, further comprising the step of repeating steps a, b, and c for each of a plurality of subroutine programs available to be activated at the predefined time in an order determined by the data regarding the subroutine programs.

12. The method of claim 7, wherein the step of executing the activation operation comprises resolving the order of activation of a plurality of subroutine programs at the predefined time, said data defining interactions and priorities of activation among the subroutine programs, and the step of executing the respective subroutine program comprises executing each respective subroutine program in the order of activation.

13. A method of implementing at least one feature service for a call connection between subscribers of a call processing system having a call processor that governs the operation of connecting subscribers via the use of a basic call program and a memory that stores data regarding the basic call program and the feature services, comprising the steps of:

a. determining which feature services are available to be accessed at a respective trigger time during the execution of the basic call program;

b. blocking certain available feature services from being accessed at the respective trigger time based on feature services that are currently accessed; and

c. accessing, at the respective trigger time, each respective feature service which is available to be accessed and is not blocked, in a priority order for the feature services established at the most recent formatting of the system.

14. The method of claim 13, wherein the step of accessing

comprises performing, at the respective trigger time, an action

by the basic call program that is directed by the stored data

pertaining to the respective trigger time and to each respective

feature service which is available to be accessed and is not

blocked, said actions being performed in the same priority order

as the priority order of the feature services.

15. The method of claim 13, wherein the step of accessing

comprises accessing and executing, at the respective trigger

time, each respective feature service that is available to be

accessed and is not blocked by feature services that are

currently accessed, in the priority order for feature services.

16. The method of claim 13, wherein the step of accessing

comprises the steps of:

i. determining the highest priority ordered feature service

that can be accessed at the respective trigger time;

ii. performing a task by the basic call program that is

directed by the stored data pertaining to the respective trigger

time and to the highest priority ordered feature service;

iii. blocking certain feature services, that are available

to be accessed and that are not blocked by feature services that

are currently accessed, from being accessed at the respective

trigger time based on the stored data pertaining to the highest

priority ordered feature service; and

iv. repeating steps i, ii, and iii for the remainder of the

feature services, that are available to be accessed at the

15   respective trigger time and that are not blocked as a result of

step iii, in succeeding priority order.

17.   The method of claim 10, wherein the step of performing a

task comprises accessing and executing by the basic call program

of the highest priority ordered feature service.

18.   The method of claim 13, wherein each feature service

comprises feature call software that governs the operation of a

particular feature for a call connection between subscribers of

the system.

19.   The method of claim 13, wherein the determining step

comprises accessing and operating on data pertaining to each

feature service that is provided by the system and is requested

by a respective system subscriber, said data being arranged in a

5   format capable of being customized.

20.   The method of claim 13, wherein the determining step

comprises accessing and operating on data pertaining to each

feature service that is provided by the system and is requested

by a respective system subscriber, said data being arranged in

5   logical table and bit map format.

21.   The method of claim 13, further comprising the step of

defining at least one trigger time during the execution of the

basic call software at which a feature service can be

implemented.

22.   The method of claim 13, further comprising the step of

defining at least one trigger time during the execution of the

basic call software at which a respective feature service can be

implemented by specifying a request for the respective feature

service in the basic call program and introducing respective data

to the memory.

23.   A method of executing in a call processing system call

feature software, that governs the operation of call features, by

basic call software, that governs the operation of connecting

system subscribers, said system having a processor that operates

the software and a memory that stores the software and data

pertaining thereto, comprising the steps of:

         a.   executing, upon a feature request by the basic call

software, a first data operation to determine the respective call

features that can be executed;

         b.   executing a second data operation to inhibit certain

respective call features from being executed based on call

feature software that is currently being executed;

         c.   performing a data search of the result of the second

data operation to determine the highest priority-ordered call

feature; and

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d.   executing the call feature software for the respective

call feature determined to be the highest priority-ordered, said

priority order being established at the most recent formatting of

the system.

24.   The method of claim 23, further comprising the steps of:

a.   executing a third data operation to inhibit certain

respective call features from being executed based on the

execution of the call feature software for the respective call

feature determined to be the highest priority-ordered; and

b.   repeating the steps of executing the call feature

software and executing a third data operation for each remaining

call feature that is not inhibited in succeeding priority order.

25.   The method of claim 23, wherein the step of executing the

first data operation comprises determining a first common data

set between a data bit map that defines the call features

subscribed by the respective subscribers and a data table row

that defines the execution of a respective call feature at the

feature request.

26.   The method of claim 23, wherein the step of executing the

first data operation comprises determining a first common data

set between a data bit map that defines the call features

subscribed by the respective subscribers and a data table row

that defines the execution of a respective call feature at the

feature request and determining the entire data set between said

common data set and a data bit map that defines the call features that execute other call features upon execution.

27. The method of claim 26, wherein the step of executing the second data operation comprises determining, for each respective call feature that can be executed, a second common data set between said entire data set that defines the respective call features that can be executed and a data table row that defines the blocking of a respective call feature based on call feature software currently being executed.

28. The method of claim 27, wherein the step of performing a data search comprises performing a bit map search of the second common data set between said entire data set and a blocking data table row.

29. The method of claim 27, wherein the step of executing the call feature software comprises executing, for the respective highest priority-ordered call feature, the action defined by the data table row that defines the execution of a respective call feature at the feature request.

30. The method of claim 24, wherein the step of executing the third data operation comprises determining, for call feature software newly executed, a third common data set between said entire data set that defines the respective call features that can be executed and a data table row that defines the blocking of

a respective call feature based on call feature software newly executed.

31. The method of claim 30, wherein the step of repeating comprises determining that the third common data set is not a null set.

32. A processor for a call processing system, having a processor and a memory, that governs the operation of a call connection between subscribers and the implementation of at least one feature service for the call connection, comprising:

a. means for establishing a call connection between system subscribers;

b. means for triggering, at a predefined trigger time during the call connection, at least one feature service in a manner independent of the type of feature service to be triggered;

c. means for accessing respective feature service data stored in the memory and arranged in an administrable format for use by the means for triggering; and

d. means for directing, upon the triggering of a feature service, the interaction of a respective feature service with the operation of the call connection.

33. The processor of claim 32, wherein the means for triggering comprises:

a.   means for determining which feature services are
available to be implemented at the predefined trigger time during
the call connection; and

b.   means for implementing each feature service which is
determined to be available in a priority order established at the
most recent formatting of the system.

34.   The processor of claim 32, wherein the means for directing
comprises means for executing the feature service during the
operation of the call connection.

35.   The processor of claim 32, wherein the means for directing
comprises means for executing a task by the processor as directed
by the respective feature service data.

36.   A call processing system for a telecommunications network
that establishes call paths, via transmission lines, between a
plurality of subscriber telecommunications terminals, comprising:

a.   means for establishing and operating a connection of a
call path between respective subscriber terminals;

b.   means for providing a feature service for the respective
call path;

c.   a memory that stores data regarding the network, the
system subscribers, and the feature services and arranges the
data in a format so as to enable the feature services to be
customized; and

d. means for triggering the means for providing a feature service to provide certain feature services based on data stored in the memory and for interacting the respective feature services with the call path based on data stored in the memory, said means for triggering and interacting being independent of the type of feature services provided.

37. The call processing system of claim 36, wherein said means for providing a feature service comprises means for providing a feature service for a respective call path from a location remote from the call processing system.

38. The call processing system of claim 36, wherein said means for triggering and interacting comprises means for arbitrating the order of the respective features in interacting with the call path.

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